

REMARKS

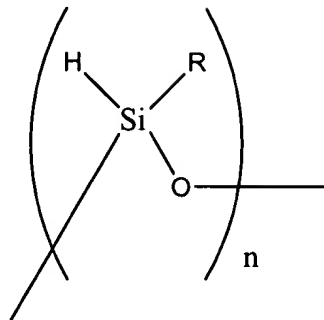
Favorable reconsideration of this application is respectfully requested.

Claims 1-17 remain pending in this application; claims 1 and 10 have been amended to clarify the coating of the present disclosure improves the fray-resistance of a suture possessing such a coating.

In the Office Action mailed June 13, 2006, the Examiner maintained the rejection of claims 1-3, 5-13, and 15-17 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,613,432 to Zamora et al. ("Zamora") in view of U.S. Patent No. 5,383,903 to Totakura ("Totakura"); and (2) maintained the rejection of claims 4 and 13 under 35 U.S.C. §103(a) as obvious over Zamora et al. in view of Totakura and further in view of U.S. Patent No. 5,463,010 to Hu et al. ("Hu").¹ Reconsideration of the foregoing rejections is respectfully requested.

With respect to the rejection of claims 1-3, 5-13, and 15-17 as obvious over Zamora et al. in view of Totakura, nowhere does Zamora et al. disclose or suggest a method for improving the fray resistance of a suture having at least one filament by applying a coating to at least a portion of a surface of the at least one filament of the suture by a plasma polymerization process of a hydrocyclosiloxane monomer of the general formula

¹ While claim 14 is not specifically identified as rejected along with claims 1-3, 5-13, and 15-17 under 35 U.S.C. §103(a) as obvious over Zamora in view of Totakura, the Examiner refers to claim 14 in the prior office action and discusses therein claim 14 in the rejection of claims 1-3, 5-13, and 15-17.



where R is an aliphatic group and n is an integer from 2 to about 10, and wherein the coating improves the fray resistance of the suture as presently recited in claim 1. Similarly, nowhere does Zamora disclose or suggest a method for making a suture with such a coating as recited in claim 10.

The Examiner has taken the position that improving the fray resistance of a suture is in the preamble, it is not entitled to patentable weight as it merely recites the purpose of a process or the intended use of a structure. However, "if the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). See also *Jansen v. Rexall Sundown, Inc.*, 342 F.3d 1329, 1333, 68 USPQ2d 1154, 1158 (Fed. Cir. 2003) (In a claim directed to a method of treating or preventing pernicious anemia in humans by administering a certain vitamin preparation to "a human in need thereof," the court held that the preamble is not merely a statement of effect that may or may not be desired or appreciated, but rather is a statement of the intentional purpose for which the method must be performed. Thus the claim was properly interpreted to mean that the vitamin preparation must be administered to a human with a recognized need to treat or prevent

pernicious anemia). It is respectfully submitted that improving the fray resistance of a suture with the coating recited in claim 1 is not merely a statement of purpose, and it is further submitted the amendment to claim 1 provides the limitation the Examiner stated was lacking due to its inclusion in the preamble.

Moreover, as previously noted by applicants, nowhere does Zamora teach coating a suture, and nowhere does Zamora disclose or suggest methods for improving the fray resistance of a suture having at least one filament by applying a coating to at least a portion of a surface of the at least one filament of the suture by a plasma polymerization process of a hydrocyclosiloxane monomer as recited in claim 1 or a method for making a suture with such a coating as recited in claim 10. Moreover, nowhere is there any appreciation in Zamora of the benefits in fray resistance obtained by coating a suture with amine groups as set forth in claims 12-15 and further including a polyalkylene oxide compound in such a coating as set forth in claims 16-17. The benefits for fray-resistance obtained with such coatings are described in the specification, especially Example 1 (pages 16-19 of the specification), and data supporting such benefits are clearly set forth and summarized in Tables 1 and 2 (found at pages 18-19 of the specification). Thus, without disclosing the benefits obtained for fray resistance, Zamora fails to render obvious claims 1-3, 5-13, and 15-17.

As previously noted by applicants, Totakura fails to remedy the deficiencies of Zamora. The Examiner has asserted that applicants attacked the references individually; however, applicants' prior response noted the deficiencies of each of the cited references and the fact that Totakura failed to remedy the deficiencies of Zamora if combined therewith.

To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. *See* MPEP §2143. Here, there is no *prima facie* case of obviousness.

The Examiner asserts that Totakura recites a method of coating polyethylene or polypropylene with siloxane and alkylene oxide. Totakura discloses coating sutures or filaments with a dimethylsiloxane-alkylene oxide copolymer. However, nowhere does Totakura disclose or suggest a method for improving the fray resistance of a suture having at least one filament by applying a coating to at least a portion of a surface of the at least one filament of the suture by a plasma polymerization process of a hydrocyclosiloxane monomer as recited in claim 1 or a method for making a suture with such a coating as recited in claim 10. Moreover, nowhere does Totakura disclose or suggest a coating further including an amine group that has been introduced onto the coating by plasma polymerization (as recited in claims 3 and 12), nor that a carbonate-based polyalkylene oxide may be contacted with the amine grafted polymer coating to produce a polyalkylene modified polymer coating (as recited in claims 7 and 16). Thus, the combined references fail to teach or suggest all of the claim limitations, and neither Totakura nor Zamora, taken alone or in any combination, render obvious claims 1-3, 5-13, and 15-17.

With respect to claims 4 and 13, the Examiner has previously admitted that neither Zamora nor Totakura disclose coating a suture by plasma polymerizing a hydrocyclosiloxane and then plasma grafting amines thereto. Thus, neither Zamora nor Totakura, taken alone or in any combination, render claims 4 and 13 obvious.


Hu fails to remedy the deficiencies of Zamora and Totakura. The Examiner asserts Hu teaches coating polypropylene fibers or other medical devices with a coating formed by plasma co-polymerization of a hydrocyclosiloxane and N-trimethylsilylallylamine. However, while Hu discloses coating microporous fibers to protect against plasma leakage and gas permeability, nowhere does Hu disclose or suggest a method for improving the fray resistance of a suture having at least one filament by applying a coating to at least a portion of a surface of the at least one filament of the suture by a plasma polymerization process of a hydrocyclosiloxane monomer as recited in claim 1, nor a method for making a suture with such a coating as recited in claim 10, nor the introduction of an amine group onto the coating by compolymerization of an unsaturated or cyclic amine with the hydrocyclosiloxane monomer on the surface of the filament as recited in claims 4 and 13. As noted above, Hu is focused on plasma leakage and gas permeability, not improving the fray resistance of sutures. There is no motivation to combine Hu, Zamora and/or Totakura, and thus the references, taken alone or in any combination, fail to describe all of the limitations of claims 4 and 13 and do not render claims 4 and 13 obvious.

In view of the foregoing, withdrawal of the rejections of Claims 1-3, 5-13, and 15-17 (and 14) under 35 U.S.C. §103(a) as being unpatentable over Zamora in view of Totakura is appropriate and is respectfully requested. Similarly, withdrawal of the rejections of Claims 4 and 13 under 35 U.S.C. §103(a) as being unpatentable over Zamora in view of Totakura and further in view of Hu, is appropriate and is respectfully requested.

In view of the foregoing, this application is believed to be in condition for allowance.

Such early and favorable action is earnestly solicited.

Respectfully submitted,



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